

**Department of the Interior
U.S. Fish and Wildlife Service**

Draft Environmental Assessment

of the

**Leopold Wetland Management District
Chronic Wasting Disease
Surveillance and Management Plan**

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U.S. Fish and Wildlife Service
Leopold Wetland Management District
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Environmental Assessment of the

Leopold Wetland Management District Chronic Wasting Disease Surveillance and Management Plan

1. Purpose and Need

1.1 Purpose

The purpose of the Environmental Assessment (EA) is to consider various alternative strategies for managing the deer herd on Leopold Wetland Management District (District) property in areas where deer infected with Chronic Wasting Disease (CWD) have been found or have a high potential of being found. The Wisconsin Department of Natural Resources (DNR) Environmental Impact Statement (EIS) that addressed CWD management in the State of Wisconsin provides comprehensive analysis of CWD, describes efforts to control it with the State, and is incorporated by reference. A contingency plan for managing CWD in ungulate populations that reside or frequent District lands has been developed for the proposed alternative and is being circulated with this EA. Implementation of the plan will ensure early, rapid, and accurate detection of CWD, and enhance coordination and communication with adjacent wildlife management agencies.

1.2 Need

Chronic wasting disease poses a threat to white-tailed deer populations. The State of Wisconsin recognizes the threat and has developed a CWD Management Plan designed to minimize the negative impact of CWD on wild and captive cervid populations, the state's economy, hunters, landowners, and other people dependent upon healthy wild and farmed populations of deer and elk. The State plan includes five major actions: 1) surveillance, 2) human health protection, 3) CWD research, 4) communications, and 5) disease control.

Lands owned by the Fish and Wildlife Service's Leopold Wetland Management District (District) geographically fall within an area of Wisconsin where CWD has been detected. It is possible that white-tailed deer infected with CWD could be found on District properties. Should a CWD positive deer be detected on District owned lands, a response from the District would be needed to prevent further spread of the disease. That response could follow the procedures/actions outlined in State plans or could deviate from those plans with an alternative strategy. A need exists to define the District's role in implementing State plans on District owned lands. A contingency plan is needed to outline what that response would be.

The plan needs to address a course of action both in the event that infected deer are found on District property and for a proactive management strategy to minimize the spread of the disease. Inasmuch as the District has a secondary role compared to the Wisconsin Department of Natural Resources (DNR) in deer management, the plan needs to be supportive of the DNR's management strategy to the extent possible. There is a need that District actions not be in opposition, to the extent possible, to the DNR's management strategies. There is a need for the plan to ensure that other trust species and activities on the District be protected from adverse impacts resulting from implementation of deer management actions.

1.3 Decisions that Need to be Made

The U.S. Fish and Wildlife Service's Regional Director will select one of the alternatives analyzed in detail and will determine, based on the facts and recommendations contained herein, whether this Environmental Assessment (EA) is adequate to support a Finding of No Significant Impact (FONSI) decision, or whether an Environmental Impact Statement (EIS) will need to be prepared.

1.4 Background

1.4.1 Disease Background - Chronic Wasting Disease (CWD) is a transmissible spongiform encephalopathy (TSE) of deer and elk in North America. The disease causes accumulation of a protease-resistant protein in central nervous system and lymphoid tissues. The consequence is severe neurological disease and eventual death. Clinical signs of CWD include: 1) no fear of

humans, 2) nervousness, 3) teeth grinding, 4) loss of coordination, 5) notable weakness, 6) excessive salivation, 7) drooping of head and ears, 8) diminished facial muscle tone, 9) excessive thirst, 10) excessive urination, 11) difficulty swallowing, 12) severe emaciation and dehydration, 13) rough dull coat, 14) inability to stand, and 15) walking in set patterns.

1.4.2 History in Wisconsin - The Wisconsin State Department of Natural Resources (DNR) began active CWD surveillance of hunter harvested deer in 1999. The DNR was notified in February 2002 that three male deer harvested from Deer Management Unit 70A near the city of Mount Horeb in western Dane County tested positive for CWD. A 12-mile radius surveillance area was designated that centered on the three index cases. During March and April 2002, 516 deer were collected from within the surveillance area of which 15 (2.9%) tested positive for CWD. With the appearance of CWD in Wisconsin the State of Wisconsin developed a CWD Management Plan designed to minimize the negative impact of CWD on wild and captive cervid populations, the state's economy, hunters, landowners, and other people dependent upon healthy wild and farmed populations of deer and elk. The State plan identified five major actions needed to manage CWD: 1) surveillance, 2) human health protection, 3) CWD research, 4) communications, and 5) disease control. The plan's recommended best management strategies to control the disease include: 1) depopulation of the deer herd in the known affected area; 2) reduction of deer populations around the affected area to establish a barrier to prevent the spread of CWD outside the affected area; and 3) ban baiting and feeding to limit the transmission of the disease. The DNR has identified three management zones to deal with CWD in the state deer population: the CWD Eradication Zone (DEZ), an Intensive Harvest Zone (IHZ), and the Herd Reduction Zone (HRZ) (formerly the CWD Management Zone).

1.4.3 History in Leopold Wetland Management District - Currently there have been no CWD infected deer known to have been harvested from any of the Waterfowl Production Areas (WPAs) on the District. Several WPAs fall within the Herd Reduction Zone (HRZ) developed by the DNR and one WPA in Dane County, Shoveler Sink, is at the extreme eastern edge of the designated Disease Eradication Zone. The township in which Shoveler Sink falls (Cross Plains, T.7 N., R.7 E., Sec. 24) has 7 recorded positive results of 639 analyzed samples.

2. Alternatives, Including the Proposed Action

2.1 Alternatives not Considered for Detailed Analysis

2.1.1 Alternative D – An alternative that was considered but not analyzed in detail involves the eradication of white-tailed deer from District lands as well as destruction of all habitats which could support white-tailed deer on District lands. This alternative would involve the use of mechanical, chemical or abiotic (fire) treatments to remove vegetation from WPAs and drive deer off these lands. Simultaneous to application of vegetation removal treatments, aerial sharpshooters, traps or other means of harvesting deer would be employed to eradicate animals. This alternative was not analyzed in detail due to the potential adverse impacts to the myriad of other plant and animal species which are known to inhabit WPAs. Additionally, the complete removal of deer from WPAs with the Leopold Wetland Management District would not ensure, and in fact would be an extremely minor contribution to the overall efforts to eradicate CWD from the State of Wisconsin. The District land base is very small, and the number of deer which exist on that land base is insignificant when compared to the overall deer population of Wisconsin.

2.1.2 Alternative E – An alternative that was considered, but not analyzed in detail involves the accelerated removal of white-tailed deer from District lands. This alternative would include the use of aerial sharpshooters, traps, and other methods for eliminating deer from District lands. As is the case with alternative D above, alternative E was not considered in detail because the complete removal of deer from WPAs within the Leopold WMD would not ensure, and in fact would be an extremely minor contribution to the overall efforts to eradicate CWD from the State of Wisconsin. The WPA land base is very small, and the number of deer which exist on that land base is insignificant when compared to the overall deer population of Wisconsin.

2.2 Alternatives Carried Forward for Detailed Analysis

2.2.1 Alternative A (Proposed Action) - The proposed CWD management strategy to be employed on Leopold Wetland Management District includes acceptance of many of the measures

identified in the State plan. Those measures are described and discussed in the Leopold Wetland Management District Chronic Wasting Disease Surveillance and Management Plan. Those measures include Disease and Population Management measures, Surveillance and Coordination measures, Testing and Handling of CWD Suspect Animals, and Baiting and Feeding measures.

2.2.1.1 Disease and Population Management - Depopulation is best utilized and most successful within the confines of individual game farms. Depopulation in such cases falls under the jurisdiction of the WIDNR, DATCP, and U.S. Department of Agriculture Animal and Plant Health Inspection Service (APHIS). Qualified District staff may be involved in these activities but only at the request and under the direction of the responsible agencies.

Limiting the possibility of CWD spread within the DEZ, IHZ and HRZ through a reduction of the deer population is promoted by the District in its CWD Response Plan. To this end, the District will rely on hunter harvest during established seasons to approach, as nearly as possible, the WIDNR population goals on WPAs that fall within the boundaries of the individual Management Zones. The District has adopted most State seasons and regulations on all WPAs open to hunting. The exception would be for deer that show the clinical signs of CWD, for these cases the procedures described below in Surveillance and Coordination and outlined further in the District's CWD Surveillance and Management Plan would be followed.

Sharpshooters would not be initially utilized on District properties to cull deer. This policy would be adjusted on a case by case basis to allow for culling through the use of sharpshooters on District lands should the DNR institute changes in its CWD policy.

2.2.1.2 Surveillance and Coordination - Prior to development of a contingency plan District staff had assisted the DNR with meeting the goals of the Wisconsin CWD Plan through communication, coordination, and cooperation. An intensive amount of on-going surveillance is being conducted by the DNR and DATCP throughout the various CWD Management Zones. District staff would conduct targeted surveillance on WPAs that fall in or within 5 miles of the DEZ, and passive, opportunistic observations of deer on other District lands. District staff would also assist other State and Federal agencies as requested. District lands would provide samples for CWD testing only from hunter harvest with the following exception: any animals that appear to have the clinical signs of CWD would be euthanized. The appropriate State Point of Contact (POC), in most cases the local DNR Conservation Warden and/or Area Biologist would be contacted prior to euthanizing a suspect animal. POCs would assist with the removal of any deer on District lands. Wardens and Biologists are trained in the proper handling and processing of deer for the CWD testing. If a warden is not available the animal could be dispatched by appropriate Federal Duty Officers. Information from the State sampling procedures would be used by the District, along with the results of the passive sampling, to meet the goals of the surveillance portion of the District CWD Surveillance and Management Plan.

2.2.1.3 Testing and Handling CWD Suspect Animals – The DNR would take a small number of carcasses (<10) from District personnel annually for testing and eventual disposal. This is above and beyond any animals removed from District properties by DNR personnel or hunter harvest. The USGS National Wildlife Health Center (NWHC) in Madison, WI has agreed to be a backup to WIDNR testing facilities, taking up to 15 samples annually from the District in the cases where WIDNR facilities are unable to handle the additional specimens.

Carcasses would be stored in a refrigerated locker facility pending the results of the CWD tests. Arrangements would be made through the UW Madison Veterinary Diagnostics Laboratory in cases where the disposal of carcasses is necessary due to positive test results.

CWD is not known to be transmissible to humans, however, other diseases may be. Written procedures and training to assist field stations in collecting CWD samples are currently being developed by NWHC. Until these are finalized basic common sense precautions will be observed when collecting and sampling animals.

2.2.1.4 Baiting and Feeding - Baiting and feeding have been and would continue to be illegal on all WPAs.

2.2.2 Alternative B (No Action) – Many of the actions identified in the State plan and proposed in Alternative A would also occur if the Leopold Wetland Management District implemented alternative B. However, several key elements, including targeted surveillance of animals on District lands within the DEZ and testing of CWD suspect animals would not occur. Additionally, no written, coordinated document would exist to assist the District with CWD response activities.

2.2.2.1 Disease and Population Management - District personnel would not be involved in depopulation activities on individual game farms.

Hunting within State established seasons and regulations would continue to be allowed on District owned lands. This would not change under the no action alternative. Hunters would continue to remove deer from those Districts lands within the DEZ, IHZ and HRZ to approach, as nearly as possible, the DNR population goals on WPAs that fall within the boundaries of the individual Management Zones.

Under the no action alternative sharpshooters would not be utilized on District properties to cull deer.

2.2.2.2 Surveillance and Coordination - District staff would continue to assist the WIDNR with meeting the goals of the Wisconsin CWD Plan through communication, coordination, and cooperation. However, District staff would not conduct targeted surveillance on WPAs that fall in or within 5 miles of the DEZ. District lands would provide samples for CWD testing from hunter harvested animals. Passive, opportunistic observations of deer on other District lands would continue. District staff would also continue to assist other State and Federal agencies as requested. The appropriate State Point of Contact (POC), in most cases the local DNR Conservation Warden and/or Area Biologist would be contacted if a sick animal were observed to assist with the removal of any deer on District lands.

2.2.2.3 Testing and Handling CWD Suspect Animals – No testing or handling of CWD suspect animals would be completed by District personnel under the no action alternative.

2.2.2.4 Baiting and Feeding - Baiting and feeding have been and would continue to be illegal on all WPAs.

2.2.3 Alternative C – Alternative C describes a more conservative approach to managing CWD on District lands.

2.2.3.1 Disease and Population Management - District personnel would not be involved in depopulation activities on individual game farms.

Hunting within State established seasons and regulations has always been allowed on District owned lands. However, under Alternative C, District lands would be closed to hunting during the white-tailed deer season in Wisconsin. No additional efforts, including the use of sharpshooters, would be made to cull deer from District lands.

2.2.3.2 Surveillance and Coordination - District staff would not conduct targeted surveillance on WPAs that fall in or within 5 miles of the DEZ. No hunter harvested samples would be obtained from District lands because these lands would be closed to hunting as discussed above. District staff would provide little if any assistance to other State and Federal agencies.

2.2.3.3 Testing and Handling CWD Suspect Animals – No testing or handling of CWD suspect animals would be completed by District personnel.

2.2.3.4 Baiting and Feeding - Baiting and feeding have been and would continue to be illegal on all WPAs.

Table 1: Summary of Actions by Alternative

	Alternative A (Preferred)	Alternative B (No Action)	Alternative C
Disease and Population Management	<i>utilize and encourage hunter harvest through State regulated seasons to reduce deer populations</i>	<i>hunter harvest through State regulated seasons would continue</i>	<i>WPAs closed to deer hunting</i>
Surveillance and Coordination	<i>assist DNR with surveillance efforts – targeted surveillance on District lands in EZ, passive surveillance on other District lands</i>	<i>assist DNR with surveillance – passive surveillance on all District lands</i>	<i>no surveillance – no coordination</i>
Testing and Handling of CWD Suspect Animals	<i>small number of samples taken annually for testing</i>	<i>no testing</i>	<i>no testing</i>
Baiting and Feeding	<i>no baiting and feeding</i>	<i>no baiting and feeding.</i>	<i>no baiting and feeding.</i>

3. Affected Environment

3.1 Physical Characteristics

Ecologically, a majority of the Leopold Wetland Management District is quite similar to the glaciated prairie region of western Minnesota. This similarity is recognized with inclusion of these glaciated prairie areas in Category 2, Prairie Pothole and Parklands, in the Service's revised "Waterfowl Habitat Acquisition Plan" (dated April 10, 1985). Melting ice from glaciers caused a huge lake to form in the middle of the District. This water body, named glacial Lake Oshkosh, can now only be seen as remnants consisting of the Fox River Valley, Lake Winnebago and Horicon Marsh.

The District is comprised of several vegetative communities, including the northern forest zone, southern forest zone and the tall grass prairies. Within the District boundaries lie five of the six Wisconsin physiographical provinces. These include the Northern Highland, Central Plains, Southeastern Ridges and Lowlands, and Southwestern Uplands, and Lake Michigan Shoreline. Throughout this part of Wisconsin, fragmentation and habitat destruction are major problems.

The District is bordered on the west by the driftless area of Western Wisconsin and by Lake Michigan on the east. The topography of the area is generally flat to rolling with the most prominent features being those created by the glaciers which include drumlins, kettles, moraines, kames, and eskers.

3.2 Biological Environment

3.2.1 Habitat/vegetation - The southern forests covered the southern half and western third of the state. Dominant species were primarily oak on the drier sites; sugar maple, basswood, slippery elm, red oak and ironwood on the mesic sites; and silver maple and American elm dominating the lowland sites. In pre-settlement times these forests covered approximately 5.2 million acres with another 7.3 million acres of what is considered oak savanna also falling into this category. Scattered throughout the southern forest type were areas of true tall grass prairie. These prairies covered just over 2 million acres and were most dominant in the southwest corner of the state becoming smaller and more scattered as one moved northeast. North and northeast out of the prairies and oak savanna's one would travel into the forests that dominated the northern half of Wisconsin. These forests supported jack, red, and white pine with red maple and red oak on the dry sites. The more mesic stands of the northern forests were dominated primarily by sugar maple but hemlock and/or beech may have been co-dominant also. Finally, the northern lowland (swamp) forests of Wisconsin are split into the tamarack-black spruce bog forests, the white cedar-balsam fir conifer swamps, and the black ash-yellow birch-hemlock hardwood swamps.

Major Habitat Types of Waterfowl Production Areas of the Leopold Wetland Management District:

Native Prairie (virgin)	100
Other Grasslands/Farmland	4500
Forested/Brushland	2050
Wetland/Riverine	3580

3.2.2 Listed, Proposed, and Candidate Species - There are sixteen federally listed threatened or endangered species in Wisconsin. Additionally, the State of Wisconsin has listed 73 other species as State threatened or endangered.

The District has completed a Section 7 Intra-Service Biological Evaluation Form (Appendix B) to address the impacts of chronic wasting disease management actions (alternative A) on Service owned or managed lands within the District. Eleven threatened or endangered species (bald eagle, Canada lynx, dwarf lake iris, eastern prairie fringed orchid, Fassett's locoweed, Hine's emerald dragonfly, gray wolf, Karner blue butterfly (KBB), Kirtland's warbler, pitcher's thistle, and prairie bush clover), one critical habitat (piping plover), and one candidate species (Eastern massasauga rattlesnake) were included in the evaluation. Of these, twelve were determined to have no effect (bald eagle, Canada lynx, dwarf lake iris, eastern prairie fringed orchid, Fassett's locoweed, Hine's emerald dragonfly, Karner blue butterfly, Kirtland's warbler, piping plover critical habitat, Pitcher's thistle, prairie bush clover, and Eastern massasauga rattlesnake). It was determined that the gray wolf may be effected but not adversely.

3.2.3 Other Wildlife Species - Of the approximately 81 species of mammals listed for Wisconsin, white-tailed deer, fox, coyote, skunk, racoon, muskrat, ground squirrels, deer mice, voles and shrews are most commonly observed on the District lands. While a comprehensive survey of mammals has not been completed on all units it presumable that several other species, including endangered and threatened species, may also be present.

There are currently 394 species of birds that have been observed in Wisconsin. These include those that are rare (<9 yearly records) and casual (1 record every 3-5- years) and does not include those that are accidental. Although a comprehensive bird list does not exist for the District it is believed that the WMD provides important nesting, resting, and feeding habitat for at least 263 species of birds (based on the Horicon NWR bird list). Major waterfowl use is by mallards, teal, wood ducks, and Canada geese.

The State of Wisconsin lists seven species of salamander, twelve species of frogs, eleven species of toads, four species of lizards, and nineteen species of snakes. Several species of reptiles and amphibians have been documented on the District but extensive surveys of all units have yet to be completed. It is possible, looking at species distribution maps, that several other species may occur on District lands.

3.3 Land Use

Leopold Wetland Management District (District) covers 33 counties in eastern Wisconsin and includes the counties of Adams, Brown, Calumet, Columbia, Dane, Dodge, Door, Florence, Fond du Lac, Forest, Green, Green Lake, Jefferson, Kenosha, Kewaunee, Langlade, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Ozaukee, Racine, Rock, Shawano, Sheboygan, Walworth, Washington, Waukesha, Waupaca, Waushara, and Winnebago counties. With the exception of large urban centers in Madison and Milwaukee, land use within Leopold WMD is rural in nature with a mix of working farmlands, small rural communities, small remnant natural areas and some large natural areas including Horicon National Wildlife Refuge.

3.4 Cultural/Paleontological Resources

There are currently 36 recorded cultural resource sites on District owned or managed lands. Two major sites within the WMD occur on Swan Pond, and adjacent to Harvey's Marsh WPAs both in Dane County.

3.5 Local Socio-economic Conditions

Local socio-economic conditions are reflective of rural farming communities and small towns in the Midwest. Relevant to this EA is the role of hunting in the local culture and economy. Deer and deer hunting are integral parts of Wisconsin's socio-economic fabric (WI DNR, 2003). On opening day of the traditional 9-day gun deer season, nearly 700,000 hunters pursue deer. Economically, deer hunting supports thousands of jobs in Wisconsin and deer hunting's value to the State's economy is estimated at \$1 billion/year. The Wisconsin DNR's CWD management strategy has met with some public opposition and controversy around the strategy has developed. Deer hunting is a long-held cultural tradition in Wisconsin and any threats to this tradition are met with staunch opposition. In the case of CWD, the DNR's management strategy is viewed by some as a greater threat to the overall deer population than the disease itself. Others, including technical experts on disease control and management view the DNR approach as the only reasonable approach to eradicating the disease.

4. Environmental Consequences

The Wisconsin DNR has published an Environmental Impact Statement on its plan to eradicate CWD from Wisconsin's free-ranging white-tailed deer herd. The environmental consequences of the DNR's plan on ecological, cultural and socio-economic resources are discussed in detail in that EIS. Actions described in the Leopold WMDs CWD contingency plan would be consistent with actions proposed and evaluated in the DNR's EIS. Readers are referred to the DNR's EIS for more detailed discussion of environmental consequences.

4.1 Alternative A (Proposed Action)

4.1.1 Habitat Impacts – While the implementation of alternative A should lead to some increased hunter use of Leopold WMD lands, this increased use would have no more than minor direct impacts on habitats on these lands. Deer hunting seasons typically run from mid- to early November and are usually completed at the latest by late January. Most vegetation during this time of year is entering senescence for the season or is dormant. Increased hunter use of habitats on WPAs within the District would result in very minor direct disturbance to vegetation which is already in a dormant conditions. No long term adverse impacts on vegetation or habitat provided by this vegetation is expected.

As discussed in Section 4.1.2 below, it is anticipated that implementation of alternative A would result in reduced deer densities on WPAs within the Leopold WMD. This should result in reduced "browsing" of vegetation on WPAs with a minor and probably undetectable improvement in habitat conditions.

4.1.2 Biological Impacts – The goal or purpose of implementing alternative A is to assist the State with reducing white-tailed deer herds in the various CWD management zones in central Wisconsin. It would be expected that implementation of Alternative A would result in a reduction in deer densities on WPAs within the Leopold WMD. Reduced deer densities would result in a much lowered likelihood of CWD being transmitted to and through deer inhabiting WPAs and thus would contribute to the CWD control/containment efforts in Wisconsin.

It is probable that increased utilization of WPA lands during the white-tailed deer season would result in some additional disturbance of other biological resources which inhabit these lands. However, because WPAs are currently open to hunting and other recreational uses, the incremental effect would be very minor.

4.1.3 Listed, Proposed, and Candidate Species - Consultation with the Service's Green Bay Field Office has indicated that while listed species may be present on sites within the District most listed species would not be effected. The gray wolf may be affected, but not adversely due to the limited range overlap between gray wolf populations and District lands.

4.1.4 Cultural/Social Resources – The traditional cultural/archaeological resources found on WPAs within the Leopold WMD would be unaffected by the proposed action. No disturbance of soils or sites containing archaeological resources would occur as a result if implementation of alternative A.

A non-traditional cultural/social resource known as “deer hunting” would be affected. Increased hunter access to and use of WPAs during state established deer seasons should have a positive impact on the hunting tradition, however, the long-term reduction in deer densities would have a gradual, long-term impact on hunting opportunities. Increased use of WPAs by deer hunters could displace or effect use by other hunters pursuing other game and other non-consumptive users. Some increased conflict amongst user groups would be anticipated, however, the impacts are expected to be minimal. Implementation of alternative A may generate some controversy within the public sector.

4.1.5 Environmental Justice – The CWD management actions proposed under alternative A would be unlikely to adversely affect minority or other disadvantaged populations. It is possible that State led efforts to reduce deer populations could result in additional opportunities for minorities or other disadvantaged populations to hunt deer on WPAs.

4.1.6 Cumulative Impacts – The cumulative contribution of the proposed action to managing CWD in Wisconsin is relatively small considering the total land base and number of deer which would be affected on WPAs in comparison to the total land base and number of deer in Wisconsin. While deer harvest on WPAs would be increased, the increased number of animals harvested from WPAs would be statistically insignificant compared to the total number of animals harvested statewide. However, the proposed action does represent a positive cumulative impact to the overall DNR effort, and that is an important contribution.

4.2 Alternative B (No Action)

4.2.1 Habitat Impacts – In terms of direct and indirect habitat impacts, the no action alternative is very similar to alternative A discussed above. Under the no action alternative deer hunting would continue to be allowed on WPAs and opportunities to hunt deer would be increased as a result of extended State seasons, minor increased direct disturbance of habitat associated with increased hunter use would be expected. As with alternative A, increased deer harvest and reduced deer densities on WPAs would be expected if no actions are taken. This would result in reduced impacts of vegetation and minor benefits to habitat conditions on WPAs.

4.2.2 Biological Impacts – Because hunting would continue to be allowed on WPAs, under the no action alternative it would be expected that taking no action would result in a reduction in deer densities on WPAs within the Leopold WMD. Reduced deer densities would result in a much lowered likelihood of CWD being transmitted to and through deer inhabiting WPAs and thus would contribute to the CWD control/containment efforts in Wisconsin.

It is probable that increased utilization of WPA lands during the white-tailed deer season would result in some additional disturbance of other biological resources which inhabit these lands. However, because WPAs are currently open to hunting and other recreational uses, the incremental effect would be very minor.

4.2.3 Listed, Proposed, and Candidate Species – The no action alternative was not evaluated during consultation with the Service’s Green Bay Field Office, however, it is believed that the effects of taking no additional actions to manage CWD on District Lands on threatened and endangered species would be similar to those discussed in alternative A above. Most threatened and endangered species would not be affected. The gray wolf may be affected, but not adversely due to the limited range overlap between gray wolf populations and District lands.

4.2.4 Cultural/Social Resources – The traditional cultural/archaeological resources found on WPAs within the Leopold WMD would be unaffected by the no action alternative. No disturbance of soils or sites containing archaeological resources would occur. Increased hunter access to and use of WPAs during state established deer seasons should have a positive impact on the hunting tradition, however, the long-term reduction in deer densities would have a gradual, long-term impact on hunting opportunities. As with alternative A, increased use of WPAs by deer hunters could conflict with other users, however, the impacts would likely be minimal. Taking no action may generate

some controversy within the public sector, but that controversy would be no greater than that generated by implementation of alternative A.

4.2.5 Environmental Justice – No minority or disadvantaged populations would be adversely affect if the no action alternative were implemented. Similar to alternative A, it is possible that State led efforts to reduce deer populations could result in some increased opportunities for disadvantaged or minority populations to hunt deer on WPAs.

4.2.6 Cumulative Impacts – The cumulative contribution of taking no action to managing CWD in Wisconsin is relatively small considering the total land base and number of deer which would be affected on WPAs in comparison to the total land base and number of deer in Wisconsin. While deer harvest on WPAs would be increased, the increased number of animals harvested from WPAs would be statistically insignificant compared to the total number of animals harvested statewide.

One of the primary differences between Alternative A and Alternative B is the presence of a written, coordinated plan under Alternative A and the lack of a plan under Alternative B. While many of the actions proposed under Alternative A would also occur under Alternative B, it is believed that the effectiveness and efficiency of actions would be enhanced/increased under Alternative A. Cumulatively, alternative B would be less effective at managing CWD than Alternative B.

4.3 Alternative C

4.3.1 Habitat Impacts – Implementation of alternative C would result in reduced hunter use of Leopold WMD lands. Habitat disturbance associated with direct disturbance of vegetation would be reduced. However, deer populations on WPAs would likely increase, leading to increased browsing of vegetation. This increased browse would have a direct impact on habitat structure and it could be severe if deer become concentrated on WPAs due to lack of hunting.

4.3.2 Biological Impacts – It would be expected that limiting hunting on WPAs would result in these areas functioning as refuges for white-tailed deer. Deer are very adept at avoiding hunters and in locating areas where hunting pressure is low. Increased deer densities would be expected on WPAs and it is possible that deer present on these WPAs could be infected with CWD and thus serve as safe-harbors for the disease. Diseased deer would likely move off WPAs at the close of hunting seasons and potentially transmit the disease throughout a geographic area much larger than the WPA. The long-term consequences to white-tailed deer would likely include a slow, but steady decline in deer populations as the disease spreads.

4.3.3 Listed, Proposed, and Candidate Species - Alternative C was not evaluated during consultation with the Service's Green Bay Field Office, however, implementation of alternative C could result in adverse impacts on listed plant species due to increased browse by deer. The gray wolf may be affected, but not adversely due to the limited range overlap between gray wolf populations and District lands. The impacts to gray wolf would be expected to be positive due to increased abundance of prey species (deer) on District lands.

4.3.4 Cultural/Social Resources – The traditional cultural/archaeological resources found on WPAs within the Leopold WMD would be unaffected by actions proposed in alternative C. No disturbance of soils or sites containing archaeological resources would occur.

A non-traditional cultural/social resource know as “deer hunting” would be affected. Limiting hunter access to and use of WPAs during state established deer seasons would have a negative impact on the hunting tradition. Deer would likely move to WPAs shortly after the start of hunting season and remain on WPAs until the close of deer season. Hunter success would likely decrease in areas adjacent to WPAs. Additionally, as discussed in Section 4.3.2 above, if CWD were present in animals seeking refuge on WPAs, a long-term decline in deer populations would result. Implementation of alternative C may generate some controversy within the public sector.

4.3.5 Environmental Justice - No minority or disadvantaged populations would be significantly adversely affected if alternative C were implemented. Some reduced opportunities to hunt deer on

WPAs would result if alternative C were implemented and this could impact minority or disadvantaged hunters. Public lands are typically the primary lands on which many minority and disadvantaged hunters hunt. Reduced opportunities to hunt on public lands would affect these hunters.

4.3.5 Cumulative Impacts – As discussed above, alternative C could create “safe harbors” for CWD with some substantial cumulative long-term consequences to the white-tailed deer herd in Wisconsin.

Table 2: Summary of Environmental Consequences by Alternative

	Alternative A (Preferred)	Alternative B (No Action)	Alternative C
Habitat Impacts	<i>increased human disturbance(minor) reduced browse by deer, improved vegetative conditions.</i>	<i>increased human disturbance(minor) reduced browse by deer, improved vegetative conditions.</i>	<i>Decreased human disturbance(minor) increased browse by deer, decreased vegetation health</i>
Biological Impacts	<i>reduced deer densities on WPAs</i>	<i>reduced deer densities on WPAs.</i>	<i>increased deer densities on WPAs (may serve as Refuges for CWD)</i>
Impacts on Listed, Proposed and Candidate Species	<i>no effects on most species, may affect, but unlikely to adversely affect gray wolf</i>	<i>no effects on most species, may affect, but unlikely to adversely affect gray wolf</i>	<i>increased deer densities could adversely affect endangered plants and could benefit gray wolf populations</i>
Cultural/Social Impacts	<i>no effect on cultural resources. may generate some controversy amongst local deer hunting constituencies.</i>	<i>no effect on cultural resources.</i>	<i>no effect on cultural resources. may generate some controversy amongst local deer hunting constituencies.</i>
Environmental Justice	<i>no adverse effects on minorities or disadvantaged</i>	<i>no adverse effects on minorities or disadvantaged</i>	<i>no significant adverse effects on minorities or disadvantaged, may reduce opportunities for these groups</i>
Cumulative Impacts	<i>minimal, but contributes to overall control of CWD</i>	<i>minimal, but contributes to overall control of CWD – no written plan would exist, thus effectiveness of management would be reduced.</i>	<i>could be substantial if WPAs begin to serve as Refuges for CWD positive animals</i>

5. List of Preparers

Tim Yager, Ecosystem Biologist, National Wildlife Refuge System – Regional Point of Contact for Chronic Wasting Disease coordination in Region 3 of the USFWS. Responsible for coordination and oversight of CWD management/surveillance strategies in Region. Primary author of environmental assessment. Thirteen years of experience with National Environmental Policy Act documentation.

Jim Lutes, Biologist, Leopold Wetland Management District – Co-author of environmental assessment and primary author of Leopold WMDs CWD surveillance/contingency plan.

6. Consultation and Coordination With the Public and Others

The District's CWD response plan has been developed in coordination with the Wisconsin DNR. Copies of this EA will be provided or made available to the DNR, State and Federal agencies and the general public for review.

7. Public Comments on Draft EA/EIS and Responses

Comments received on the draft EA will be summarized here and where appropriate responses to the comments will be provided.

8. References Cited

Wisconsin Department of Natural Resources. February 2003. Environmental Impact Statement on Rules to Eradicate Chronic Wasting Disease from Wisconsin's Free-Ranging White-tailed Deer Herd.